UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

32628 7590 11/12/2008 KANESAKA BERNER AND PARTNERS LLP 1700 DIAGONAL RD EXAMINER

KALAFUT, STEPHEN J

ART UNIT PAPER NUMBER

1795 DATE MAILED: 11/12/2008

SUITE 310 ALEXANDRIA, VA 22314-2848

 APPELCATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONTRIBUATION NO.

 10594.626
 09/28/2006
 Ryoichi Okuyama
 KPO-006
 5241

 TILL GO FINVENTION: SUBMARIAB BOAT
 TO THE CONTRIBUTION SUBMARIAB BOAT
 TO THE CONTRIBUTION SUBMARIAB BOAT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	02/12/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THE APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further c indicated unless correcte	form should be used f correspondence includin d below or directed oth	or transmitting the ISSI of the Patent, advance of cerwise in Block 1, by (	JE FEE and PUBLICATI rders and notification of r a) specifying a new corres	ON FEE (if requi naintenance fees w pondence address;	red). B rill be r and/or	locks 1 through 5 sl mailed to the current (b) indicating a sepa	nould be completed where correspondence address as rate "FEE ADDRESS" for
maintenance fee notifications.  CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)			Not Feet paps	Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.			
32628	7590 11/12	/2008		Cont	tificato	of Moiling or Trans	mission
1700 DIAGONA SUITE 310		ARTNERS LLP	I he Stat addi tran	reby certify that thi es Postal Service w ressed to the Mail smitted to the USP	is Fec(s rith suff Stop 1 FO (57)	Transmittal is being ficient postage for firs ISSUE FEE address () 273-2885, on the d	deposited with the United t class mail in an envelope above, or being facsimile ate indicated below.
ALEXANDRIA,	VA 22314-2848						(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/594,626	09/28/2006		Ryoichi Okuyama		KPO-006		5241
TITLE OF INVENTION:	SUBMARINE BOAT						
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0		\$1810	02/12/2009
EXAMI	INER	ART UNIT	CLASS-SUBCLASS	1			
KALAFUT, S	STEPHEN J	1795	429-013000	•			
I. Change of correspondence address or indication of "Fee Address" (37 CFR 1.56).  Change of correspondence address for Change of Correspondence Address form PTOVSB/122) attached.  Tee Address' indication or "Fee Address" Indication form PTOVSB/12; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			2. For printing on the patent front page, list (I) the aames of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent autorency or agents. If no name is stock, no name will be pretited.				
PLEASE NOTE: Unk recordation as set forth (A) NAME OF ASSIG	ess an assignee is identi i in 37 CFR 3.11. Comp iNEE	ified below, no assignee pletion of this form is NO	THE PATENT (print or typ data will appear on the p T a substitute for filing an (B) RESIDENCE: (CITY	atent. If an assigne assignment. and STATE OR C	OUNT	RY)	
Please check the appropri	ate assignee category or	categories (will not be p	rinted on the patent):	Individual 🖵 Co	rporati	on or other private gro	up entity Government
Advance Order - #	o small entity discount p	permitted)	b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo	d. Form PTO-2038	is atta	ched. equired fee(s), any de	
	SMALL ENTITY statu	s. See 37 CFR I.27.	☐ b. Applicant is no lon				
NOTE: The Issue Fee and interest as shown by the re	l Publication Fee (if requeecords of the United Sta	ired) will not be accepte tes Patent and Trademark	d from anyone other than t Office.	he applicant; a regi	stered a	ttorney or agent; or th	e assignee or other party in
Authorized Signature				Date			
Typed or printed name				Registration N			
This collection of informs an application. Confidenti submitting the completed this form and/or suggestic Box 1450, Alexandria, Vi Alexandria, Virginia 2231	ation is required by 37 C iality is governed by 35 application form to the ons for reducing this but irginia 22313-1450. DC (3-1450.	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary den, should be sent to the ONOT SEND FEES OR	on is required to obtain or r 1.14. This collection is est r depending upon the indiv e Chief Information Office COMPLETED FORMS TO	etain a benefit by the imated to take 12 m idual case. Any co- er, U.S. Patent and O THIS ADDRESS	ne publ ninutes mment: Tradem . SENI	to which is to file (and to complete, including s on the amount of tit ark Office, U.S. Depa of TO: Commissioner	by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. for Patents, P.O. Box 1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



## UNITED STATES PATENT AND TRADEMARK OFFICE

### NITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Offic Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 11/12/2008

	APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
	10/594,626	09/28/2006	Ryoichi Okuyama	KPO-006	5241		
	32628 7590 11/12/2008			EXAMINER			
	KANESAKA BE	RNER AND PART	KALAFUT, STEPHEN J				
1700 DIAGONAL RD			ART UNIT	PAPER NUMBER			
SUITE 310				1795			
ALEXANDRIA, VA 22314-2848							

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 137 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 137 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

## Application No. Applicant(s) 10/594 626 OKUYAMA ET AL. Notice of Allowability Examiner Art Unit Stephen J. Kalafut 1795 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. This communication is responsive to applicant's paper of 10 July 2008. 2. The allowed claim(s) is/are 47-77. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) \( \subseteq \text{Some\* c) \subseteq \text{None of the:} a) $\square$ All 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \* Certified copies not received: \_\_\_\_\_. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application

Paper No./Mail Date

of Biological Material

2. Notice of Draftperson's Patent Drawing Review (PTO-948)

4. T Examiner's Comment Regarding Requirement for Deposit

Information Disclosure Statements (PTO/SB/08).

 Interview Summary (PTO-413), Paper No./Mail Date .

9. ☐ Other .

7. X Examiner's Amendment/Comment

8. X Examiner's Statement of Reasons for Allowance

Application/Control Number: 10/594,626

Art Unit: 1795

The following is an examiner's statement of reasons for allowance: As pointed out by applicants, co-pending Application No. 10/594,711 has not been allowed. There is thus no reason to maintain the provisional Obviousness Type Double Patenting rejection. The prior art of record does not disclose a submarine boat with a fuel cell, a propelling device driven by electricity from the fuel cell, a hydrogen generating device for supplying a hydrogen-containing gas to the fuel cell, where the device decomposes an organic compound and comprises a partition membrane, a fuel electrode on one side thereof, an oxidizing electrode on the other side, and means for supplying an oxidizing agent to the oxidizing electrode.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The Abstract has been changed as to read as follows:

[[A submarine boat is provided on which a hydrogen generating device which can supply hydrogen easily to a hydrogen storing means and can generate a hydrogen-containing gas at a low temperature is loaded.]] A submarine boat provided with a fuel cell (30) for power generation by supply of hydrogen and oxidizing agent, a hydrogen generating device (10) for

Art Unit: 1795

generating a gas containing hydrogen to be supplied to the fuel cell, and propelling device driven by electricity generated by the fuel cell, characterized in that the hydrogen generating device is to generate a gas containing hydrogen by decomposing a fuel containing an organic compound, comprising a partition membrane (11), a fuel electrode (12) provided on one surface of the partition membrane, means (16) for supplying a fuel containing the organic compound and water to the fuel electrode, an oxidizing electrode (14) provided on the other surface of the partition membrane, means (17) for supplying an oxidizing agent to the oxidizing electrode, and means for generating and collecting the gas containing hydrogen from the fuel electrode. [[There are cases: (1) the hydrogen generating device is an open circuit having neither means for withdrawing electric energy to outside from a hydrogen generating cell constituting the hydrogen generating device, nor means for providing electric energy from outside to the hydrogen generating cell; (2) the hydrogen generating device has means for withdrawing electric energy to outside with the fuel electrode serving as a negative electrode and the oxidizing electrode as a positive electrode; and (3) the hydrogen generating device has means for providing electric energy from outside with the fuel electrode serving as cathode and the oxidizing electrode as anode.]]

The following changes are made to the claims, to correct minor informalities:

In claim 47, line 1, "An" has been changed to -- A--.

In claim 76, line 1, after "boat", the letter "e" has been deleted.

Art Unit: 1795

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Kalafut whose telephone number is 571-272-1286. The examiner can normally be reached on Mon-Fri 8:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen J. Kalafut/ Primary Examiner, Art Unit 1795